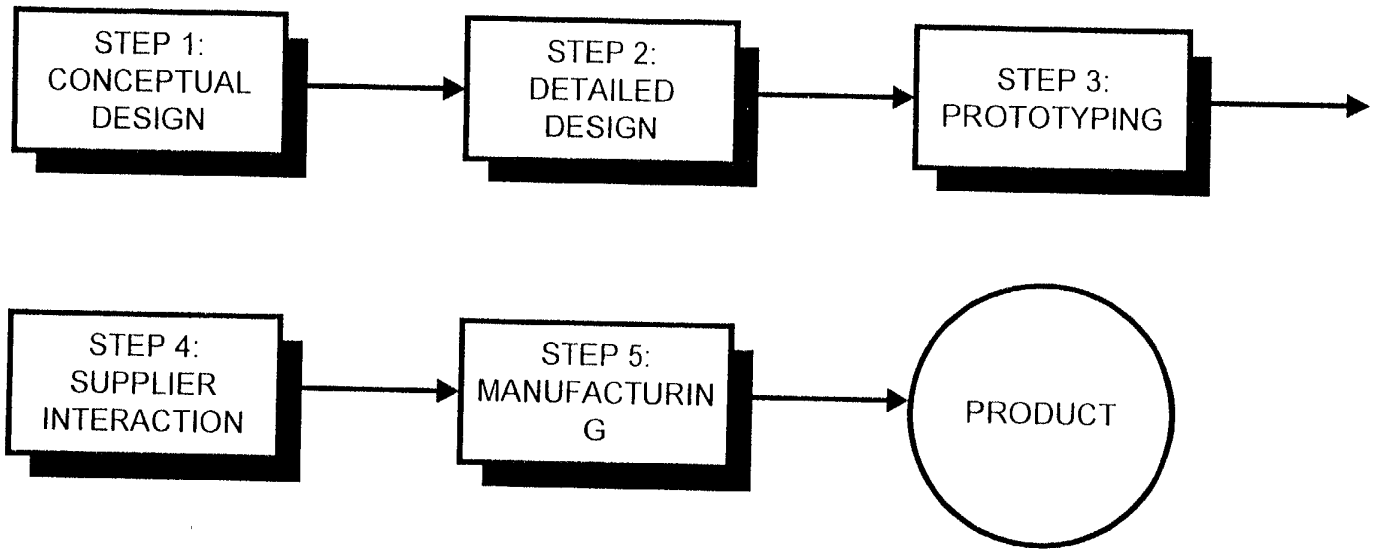

STEP 1: CONCEPTUAL DESIGN
STEP 2: DETAILED DESIGN
STEP 3: PROTOTYPING
STEP 4: SUPPLIER INTERACTION
STEP 5: MANUFACTURING
PRODUCT

Fig. 1

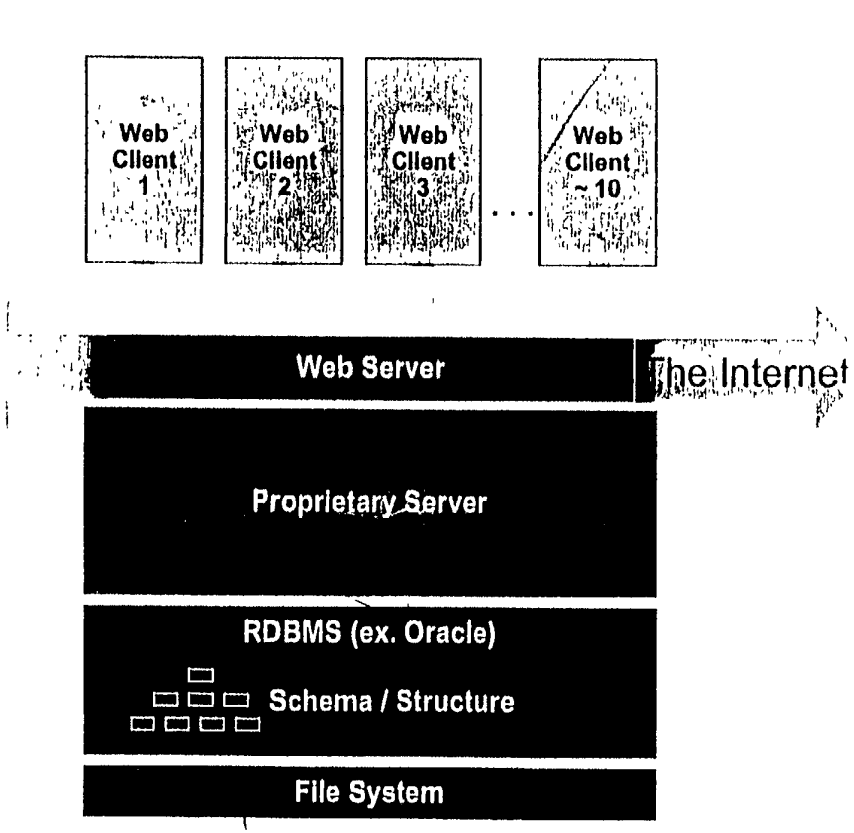

Web Client 1
Web Client 2
Web Client 3
Web Client ~ 10
Web Server
The Internet
Proprietary Server
RDBMS (ex. Oracle)
Schema / Structure
File System

Fig 2A

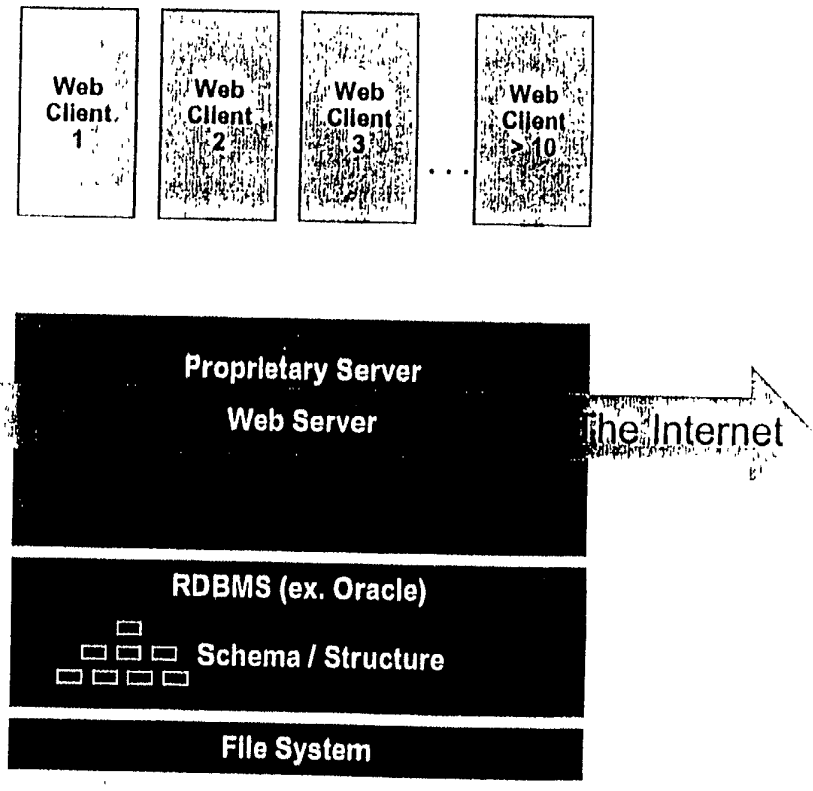

Web Client 1
Web Client 2
Web Client 3
Web Client > 10
Proprietary Server
Web Server
The Internet
RDBMS (ex. Oracle)
Schema / Structure
File System

Fig 2B

Fig. 3

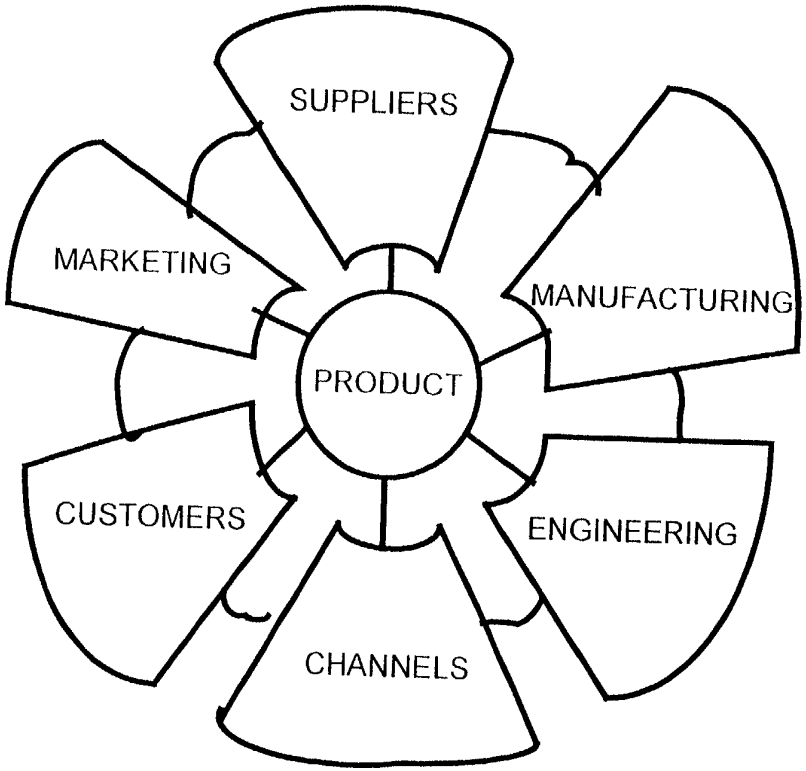

SUPPLIERS
MARKETING
MANUFACTURING
PRODUCT
CUSTOMERS
ENGINEERING
CHANNELS

Fig. 4

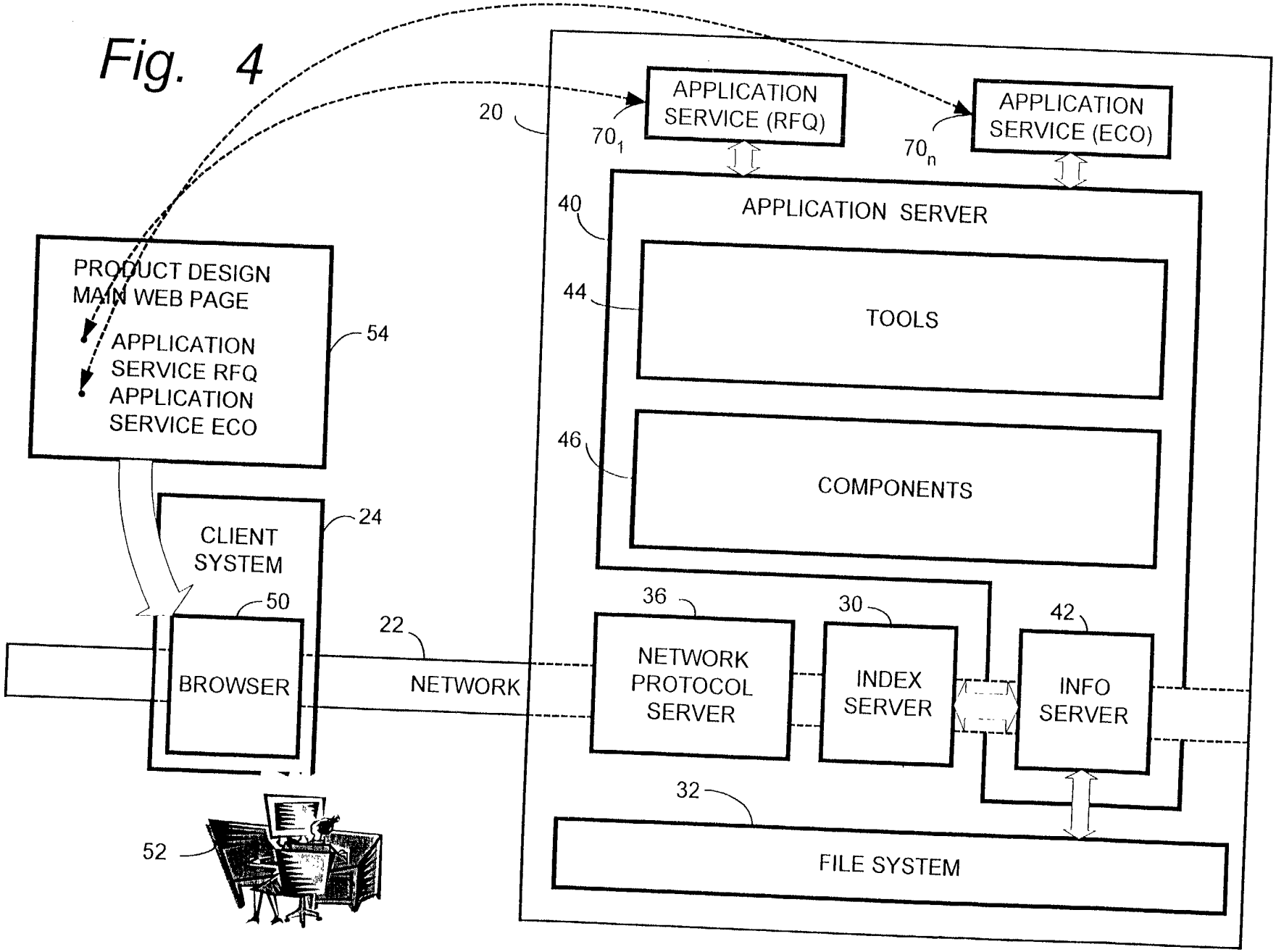

20
APPLICATION SERVICE (RFQ)
70$_1$
APPLICATION SERVICE (ECO)
70$_n$
40
APPLICATION SERVER
44
TOOLS
46
COMPONENTS
PRODUCT DESIGN MAIN WEB PAGE
APPLICATION SERVICE RFQ
APPLICATION SERVICE ECO
54
CLIENT SYSTEM
24
50
BROWSER
22
NETWORK
36
NETWORK PROTOCOL SERVER
30
INDEX SERVER
42
INFO SERVER
32
FILE SYSTEM
52

Fig. 4A

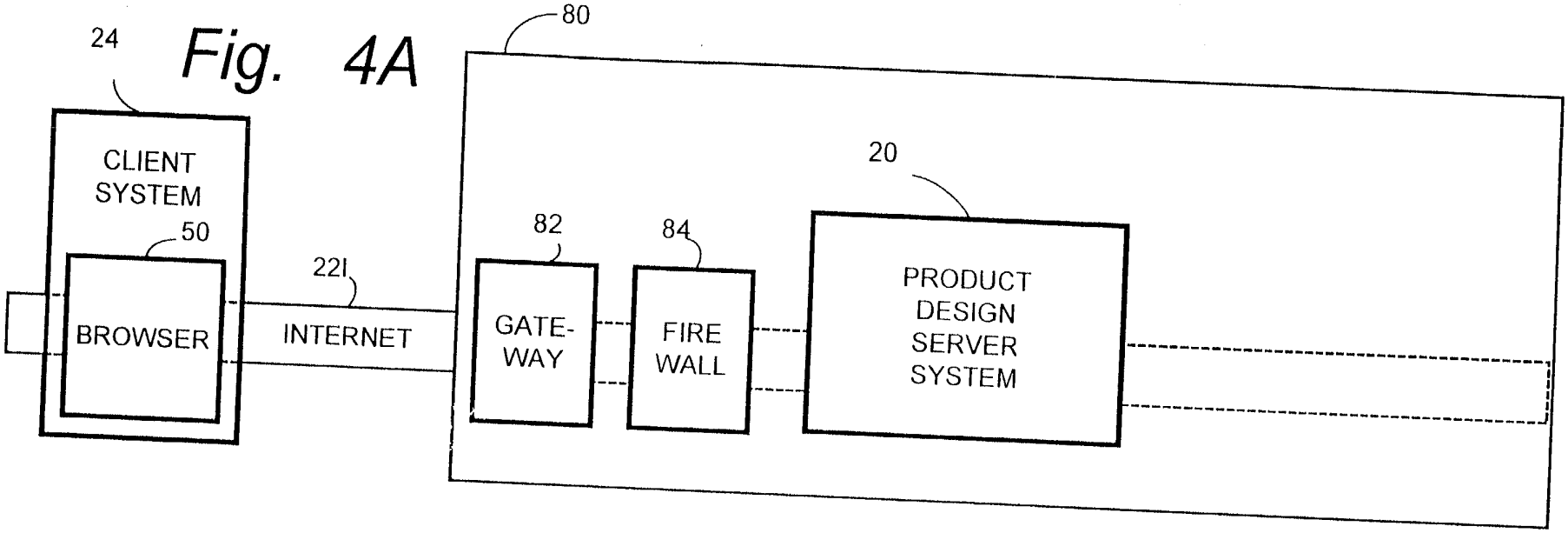

24
80
CLIENT SYSTEM
50
BROWSER
22I
INTERNET
82
GATE-WAY
84
FIRE WALL
20
PRODUCT DESIGN SERVER SYSTEM

Fig. 4B

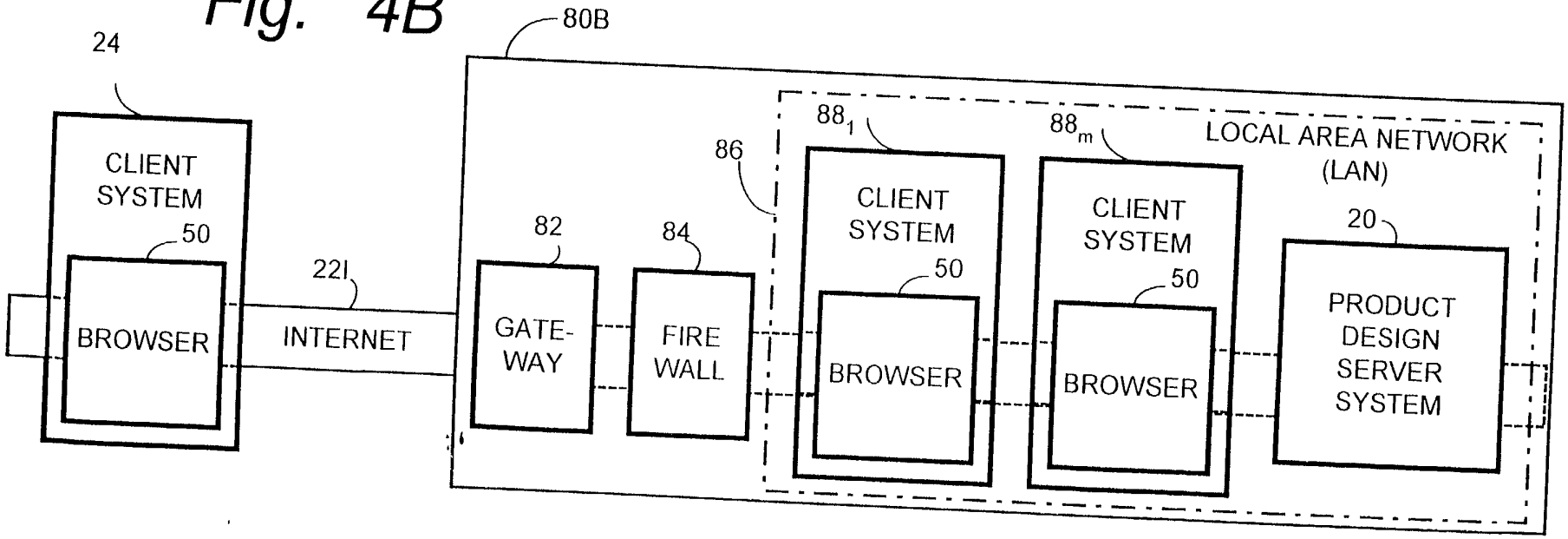
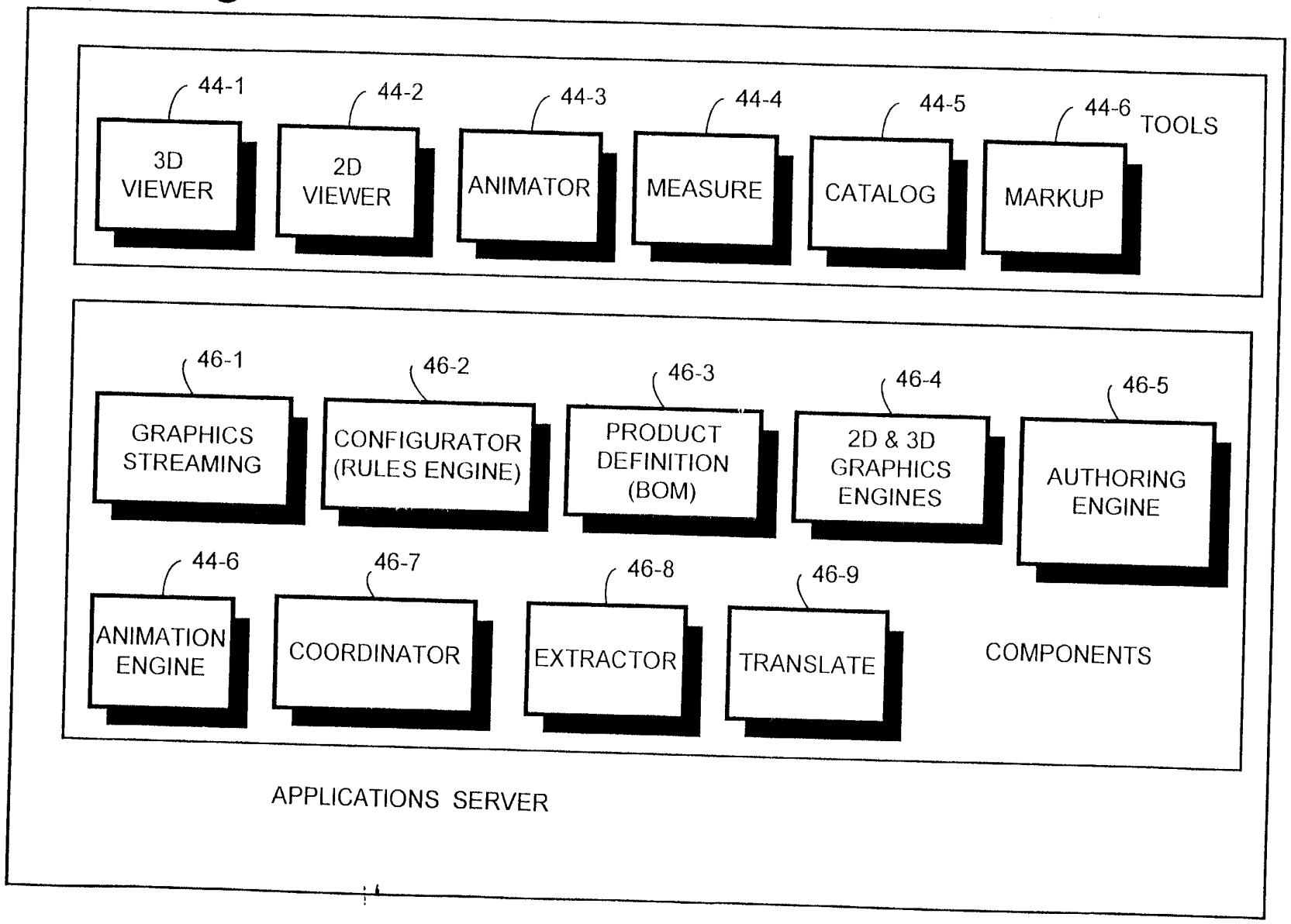

24
80B
CLIENT SYSTEM
50
BROWSER
22I
INTERNET
82
GATE-WAY
84
FIRE WALL
86
88$_1$
CLIENT SYSTEM
50
BROWSER
88$_m$
CLIENT SYSTEM
50
BROWSER
LOCAL AREA NETWORK (LAN)
20
PRODUCT DESIGN SERVER SYSTEM

Fig. 5


44-1
3D VIEWER
44-2
2D VIEWER
44-3
ANIMATOR
44-4
MEASURE
44-5
CATALOG
44-6
MARKUP
TOOLS
46-1
GRAPHICS STREAMING
46-2
CONFIGURATOR (RULES ENGINE)
46-3
PRODUCT DEFINITION (BOM)
46-4
2D & 3D GRAPHICS ENGINES
46-5
AUTHORING ENGINE
44-6
ANIMATION ENGINE
46-7
COORDINATOR
46-8
EXTRACTOR
46-9
TRANSLATE
COMPONENTS
APPLICATIONS SERVER

Passed Cleared

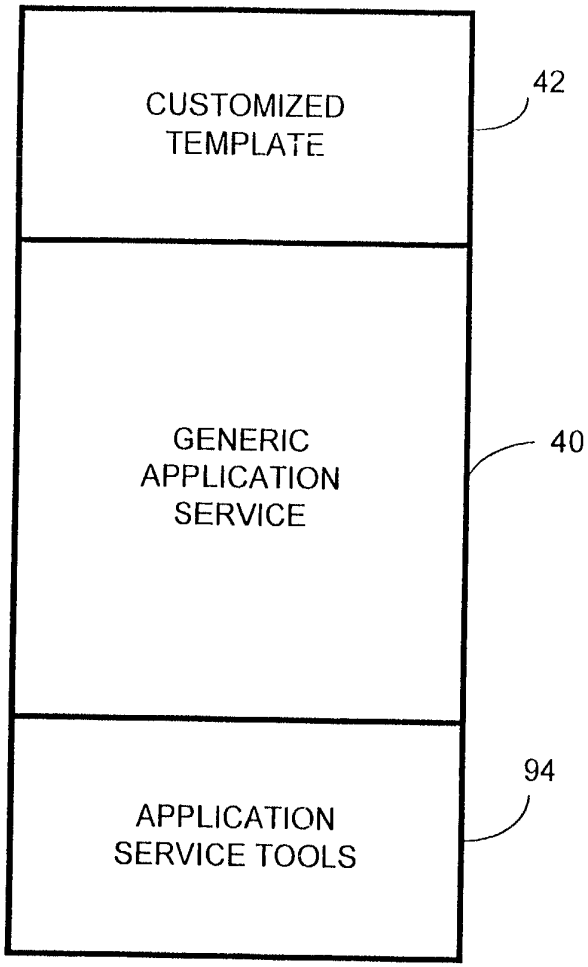


Fig. 6

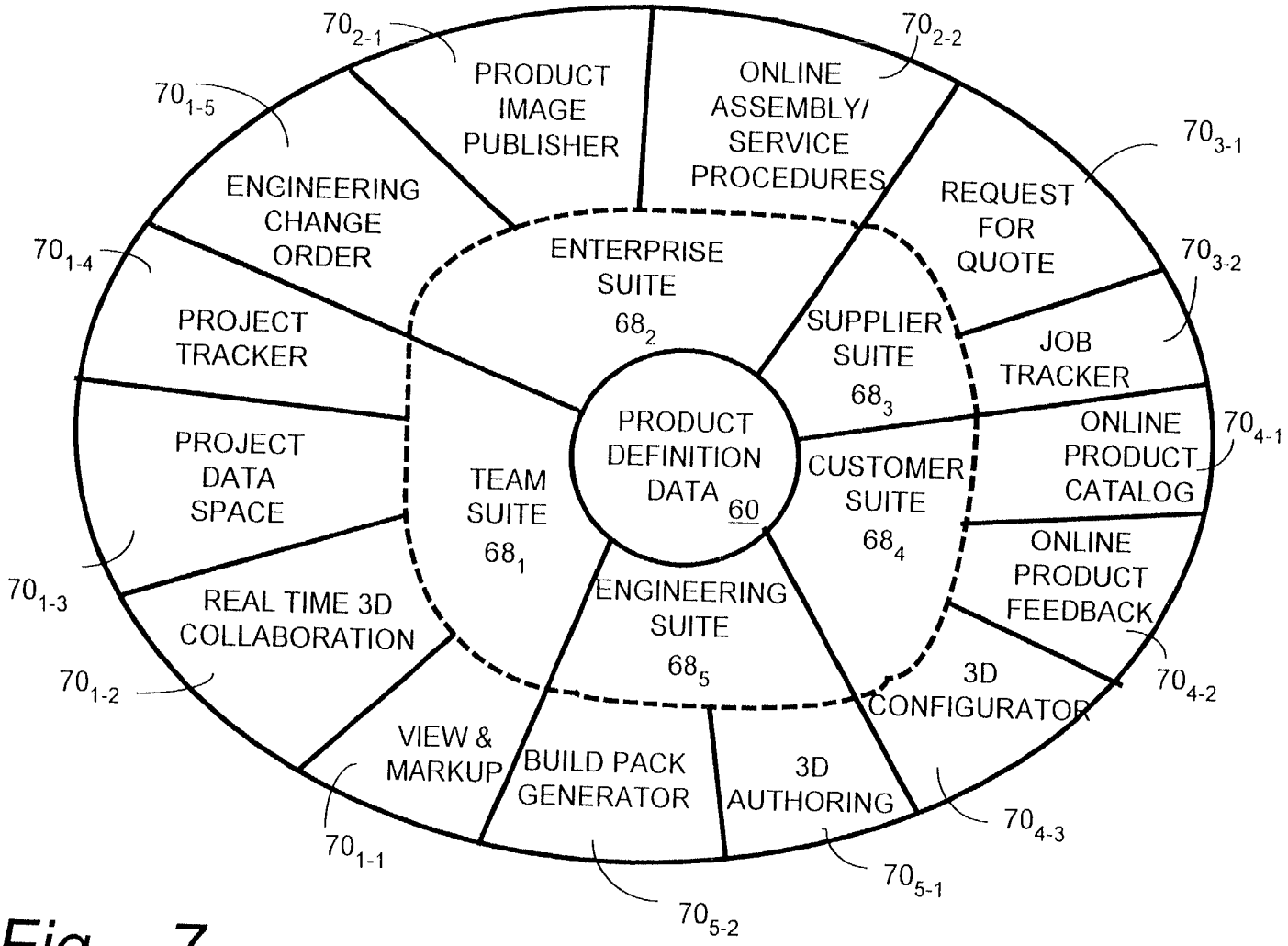

PRODUCT IMAGE PUBLISHER
ONLINE ASSEMBLY/ SERVICE PROCEDURES
REQUEST FOR QUOTE
JOB TRACKER
ONLINE PRODUCT CATALOG
ONLINE PRODUCT FEEDBACK
3D CONFIGURATOR
3D AUTHORING
BUILD PACK GENERATOR
VIEW & MARKUP
REAL TIME 3D COLLABORATION
PROJECT DATA SPACE
PROJECT TRACKER
ENGINEERING CHANGE ORDER
ENTERPRISE SUITE 68$_2$
SUPPLIER SUITE 68$_3$
CUSTOMER SUITE 68$_4$
ENGINEERING SUITE 68$_5$
TEAM SUITE 68$_1$
PRODUCT DEFINITION DATA 60
70$_{2-1}$
70$_{2-2}$
70$_{3-1}$
70$_{3-2}$
70$_{4-1}$
70$_{4-2}$
70$_{4-3}$
70$_{5-1}$
70$_{5-2}$
70$_{1-1}$
70$_{1-2}$
70$_{1-3}$
70$_{1-4}$
70$_{1-5}$

Fig. 7

JP03230762A2

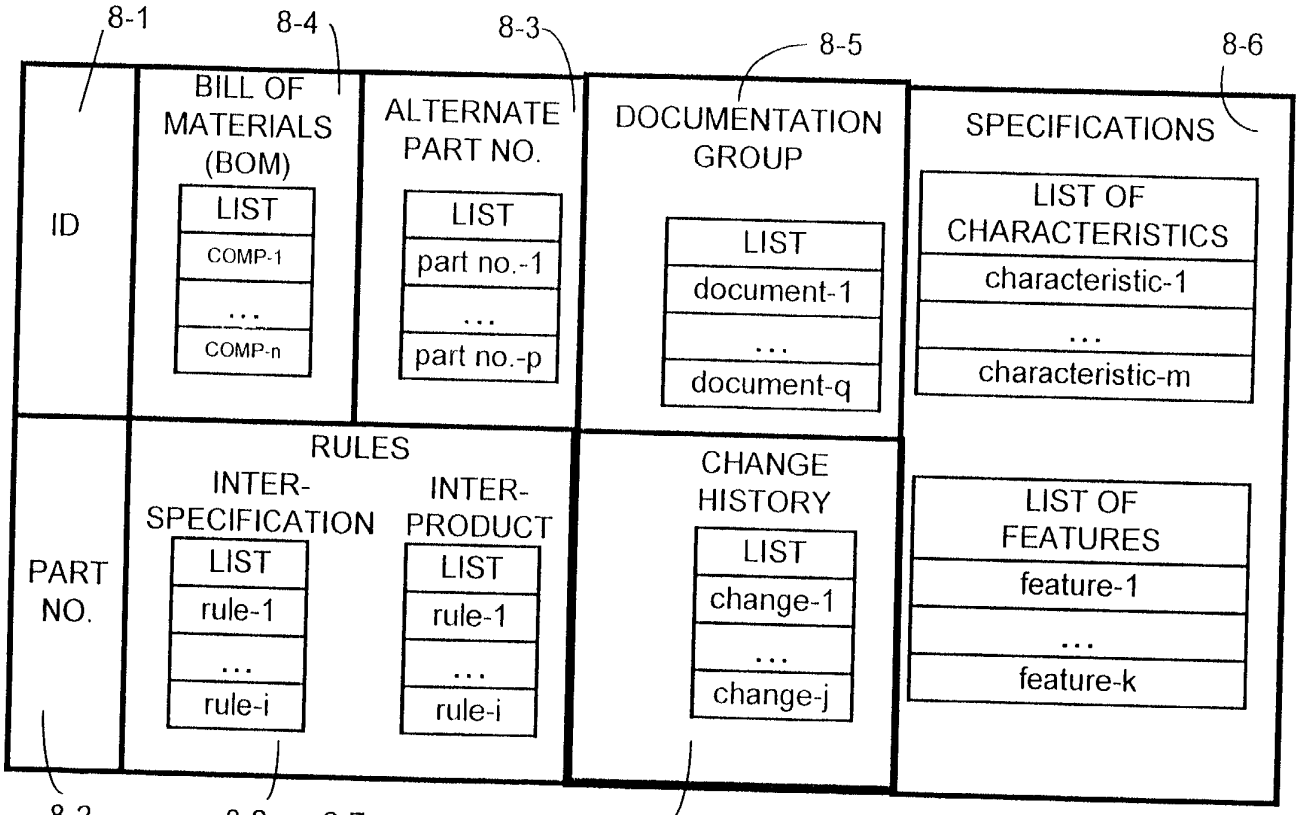
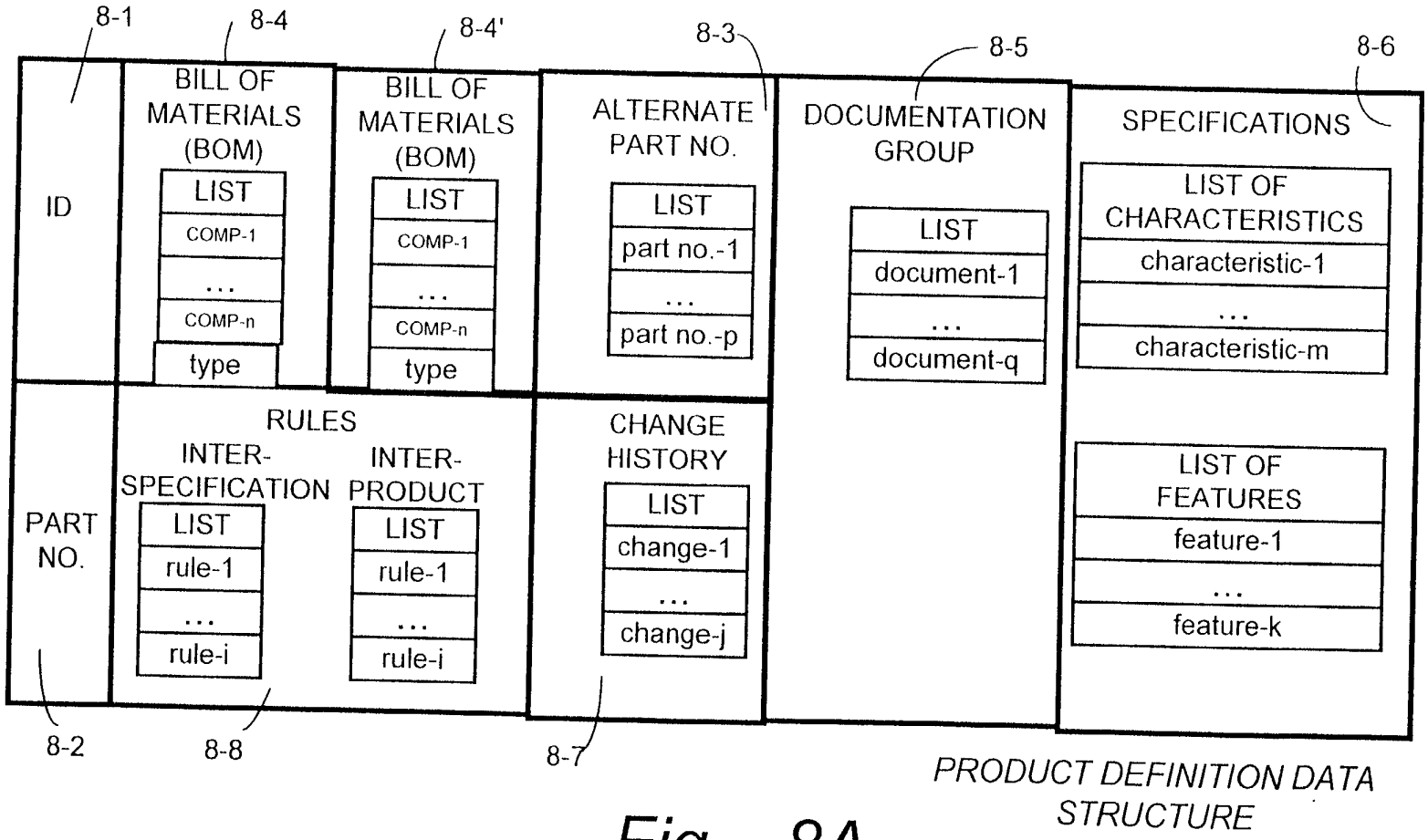


Fig. 8 PRODUCT DEFINITION DATA STRUCTURE



PRODUCT DEFINITION DATA STRUCTURE

Fig. 8A

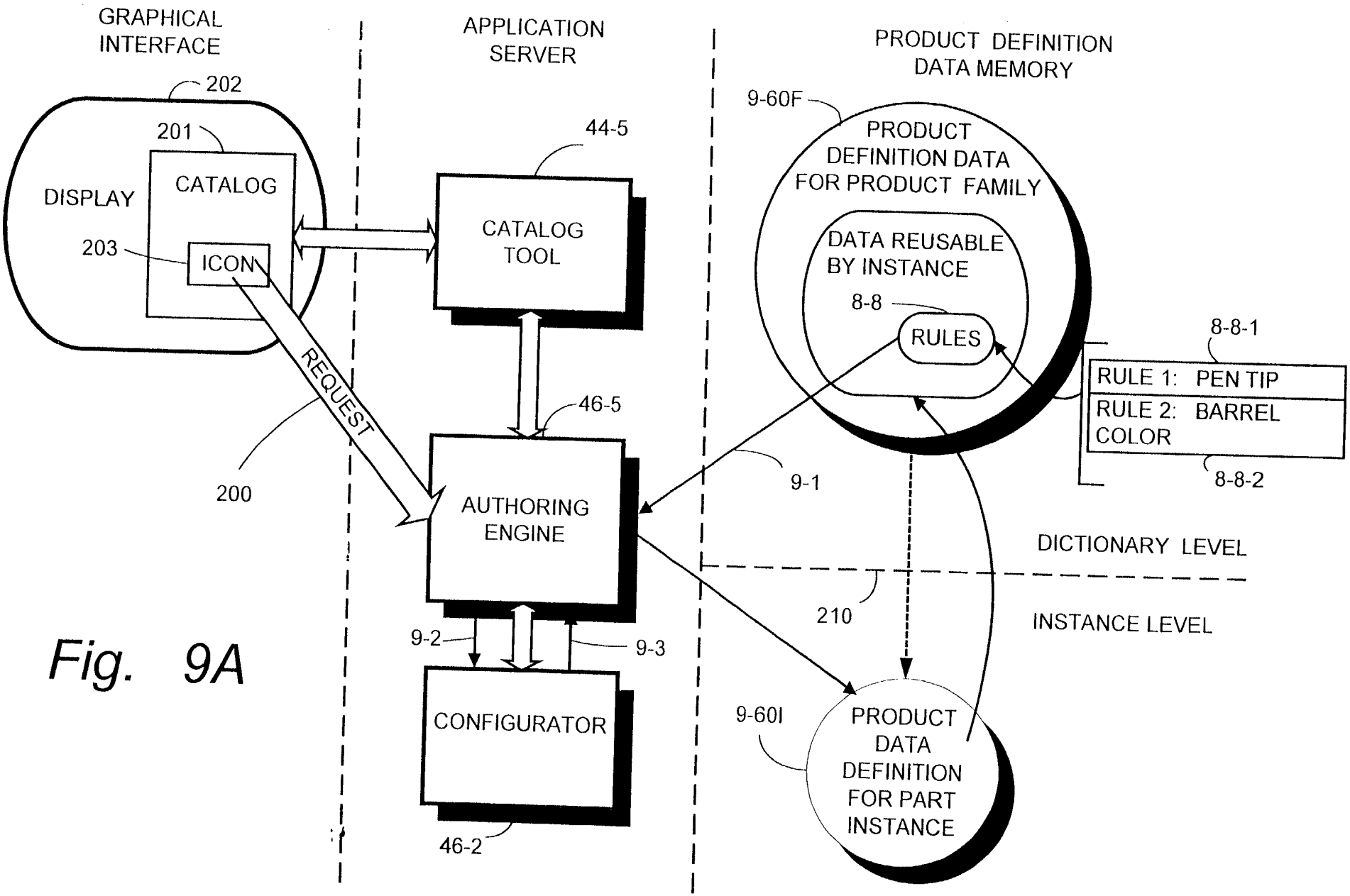

GRAPHICAL INTERFACE
APPLICATION SERVER
PRODUCT DEFINITION DATA MEMORY
202
201
DISPLAY
CATALOG
203
ICON
REQUEST
200
44-5
CATALOG TOOL
46-5
AUTHORING ENGINE
9-2
9-3
CONFIGURATOR
46-2
9-60F
PRODUCT DEFINITION DATA FOR PRODUCT FAMILY
DATA REUSABLE BY INSTANCE
8-8
RULES
8-8-1
RULE 1: PEN TIP
RULE 2: BARREL COLOR
8-8-2
9-1
DICTIONARY LEVEL
210
INSTANCE LEVEL
9-60I
PRODUCT DATA DEFINITION FOR PART INSTANCE

Fig. 9A

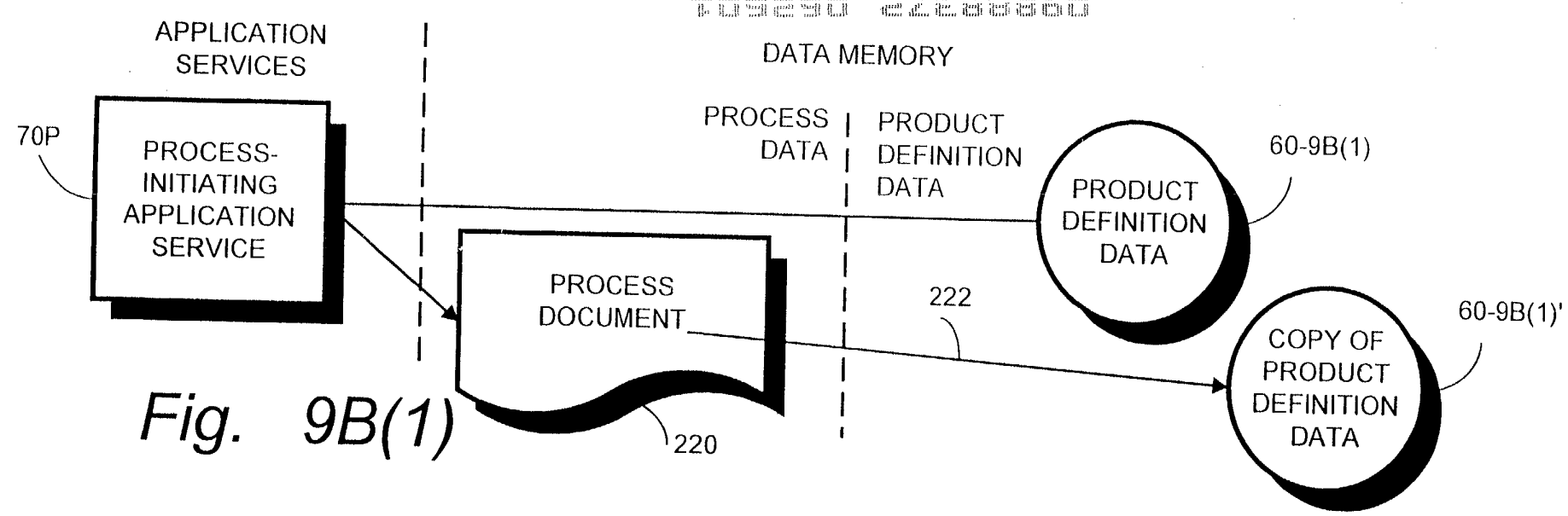


Fig. 9B(1)

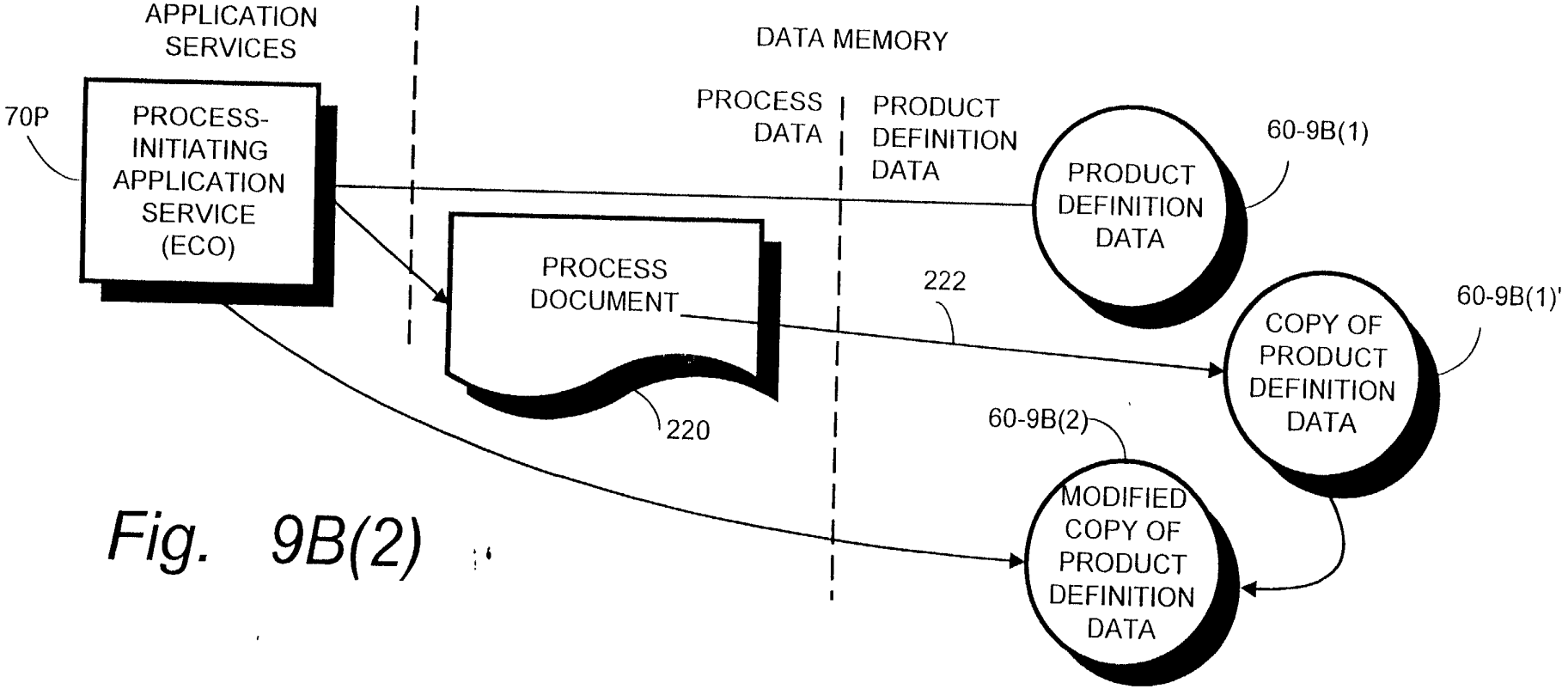


Fig. 9B(2)

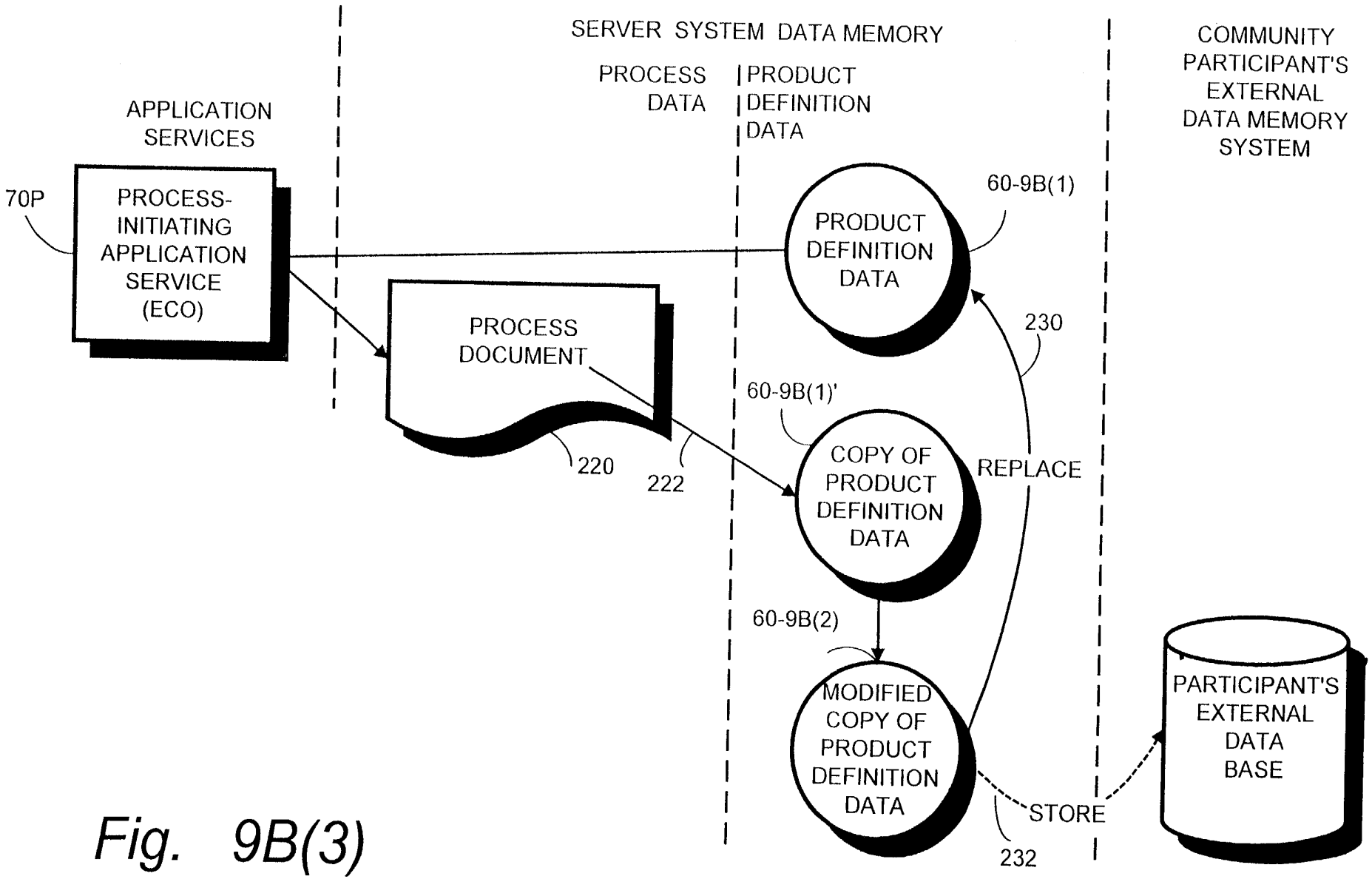

SERVER SYSTEM DATA MEMORY
PROCESS DATA
PRODUCT DEFINITION DATA
COMMUNITY PARTICIPANT'S EXTERNAL DATA MEMORY SYSTEM
APPLICATION SERVICES
70P
PROCESS-INITIATING APPLICATION SERVICE (ECO)
PROCESS DOCUMENT
220
222
60-9B(1)
PRODUCT DEFINITION DATA
230
60-9B(1)'
COPY OF PRODUCT DEFINITION DATA
REPLACE
60-9B(2)
MODIFIED COPY OF PRODUCT DEFINITION DATA
STORE
232
PARTICIPANT'S EXTERNAL DATA BASE

Fig. 9B(3)

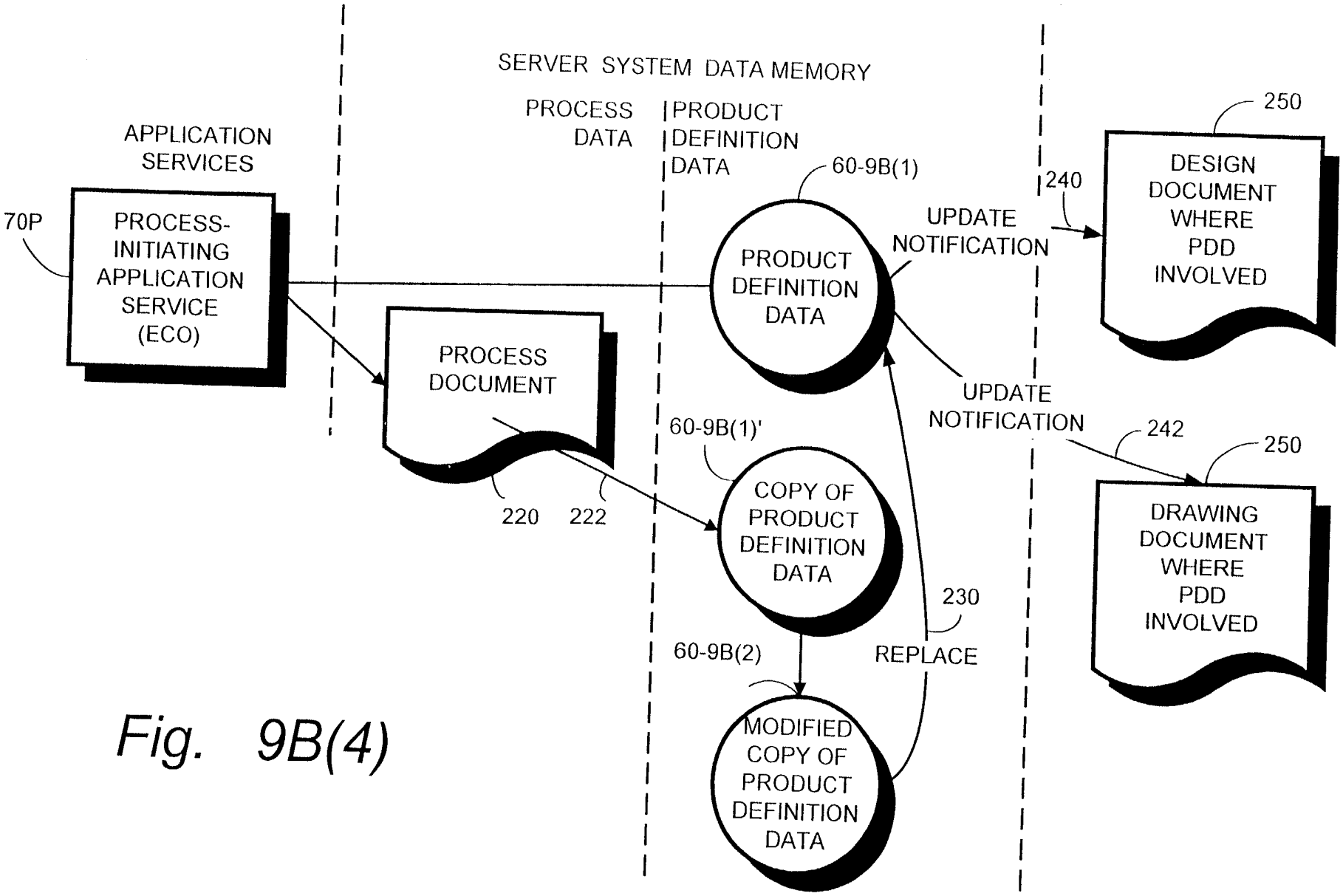

SERVER SYSTEM DATA MEMORY
PROCESS DATA
PRODUCT DEFINITION DATA
APPLICATION SERVICES
70P
PROCESS-INITIATING APPLICATION SERVICE (ECO)
PROCESS DOCUMENT
220
222
60-9B(1)
PRODUCT DEFINITION DATA
240
UPDATE NOTIFICATION
250
DESIGN DOCUMENT WHERE PDD INVOLVED
UPDATE NOTIFICATION
242
250
DRAWING DOCUMENT WHERE PDD INVOLVED
60-9B(1)'
COPY OF PRODUCT DEFINITION DATA
230
REPLACE
60-9B(2)
MODIFIED COPY OF PRODUCT DEFINITION DATA

Fig. 9B(4)

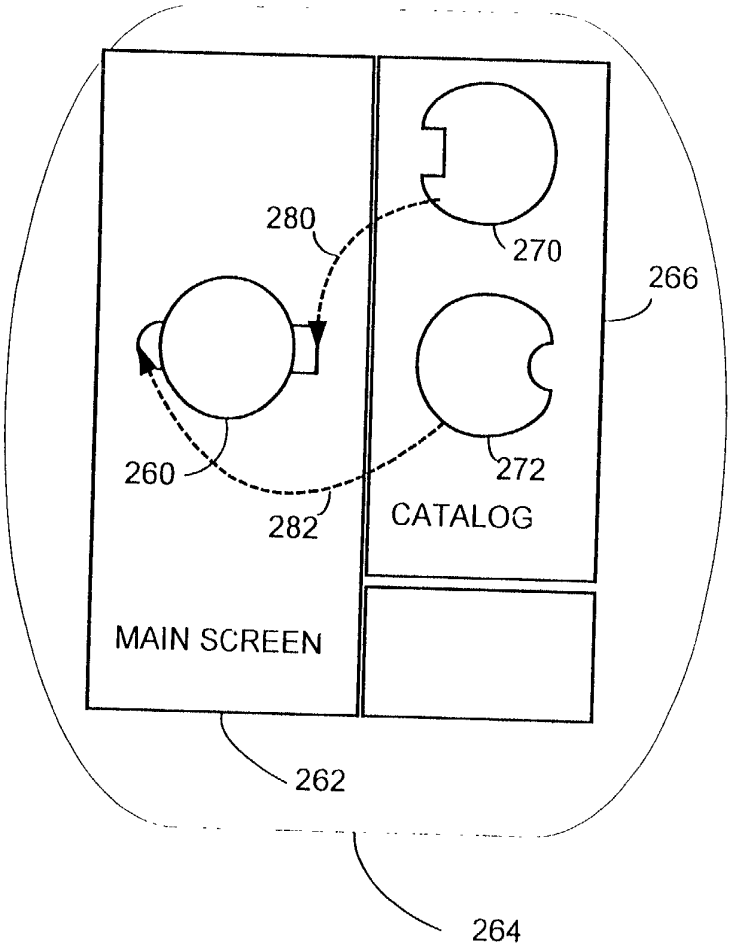


Fig. 9C(1)

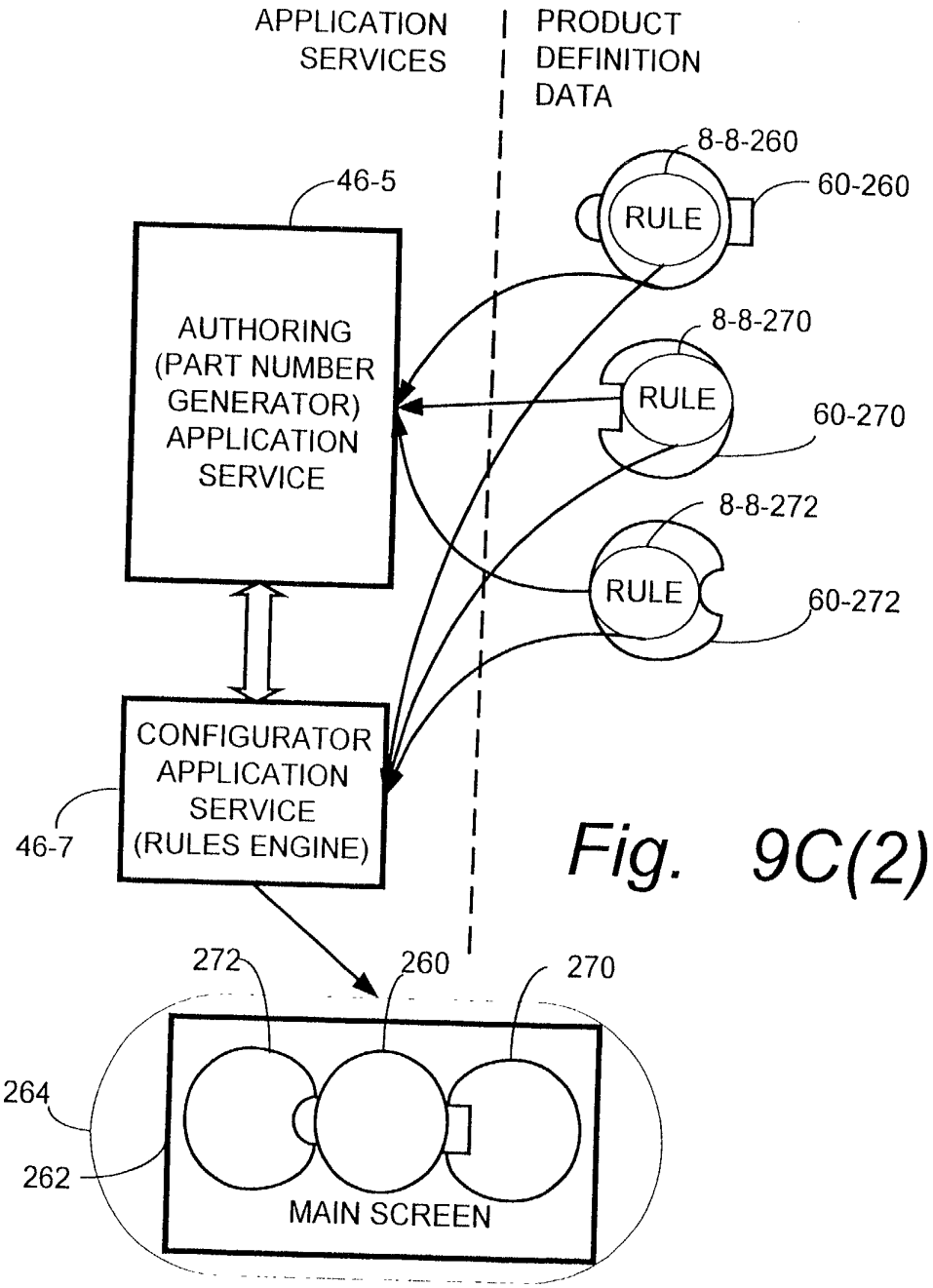


Fig. 9C(2)

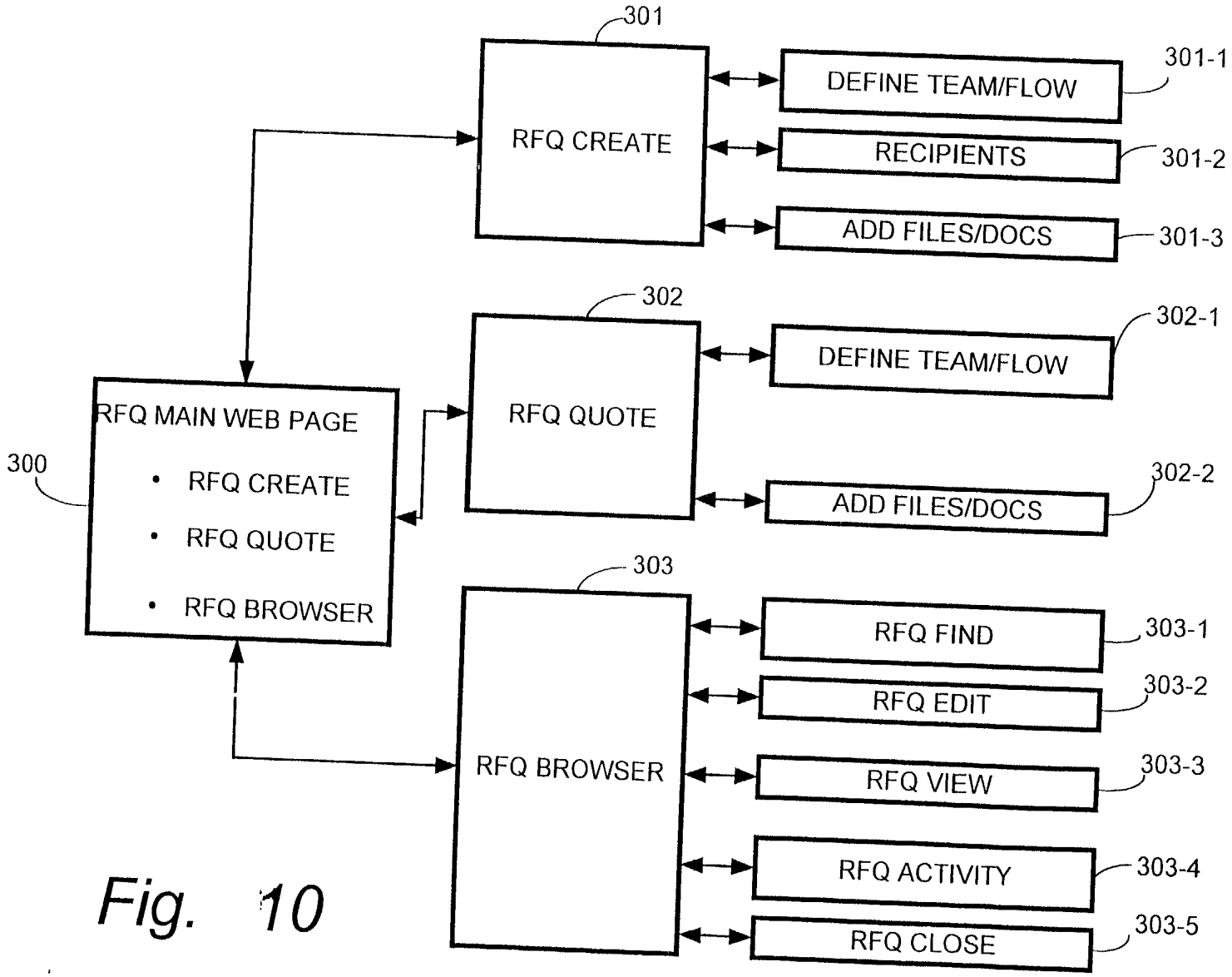

301
RFQ CREATE
DEFINE TEAM/FLOW
301-1
RECIPIENTS
301-2
ADD FILES/DOCS
301-3
302
RFQ QUOTE
DEFINE TEAM/FLOW
302-1
ADD FILES/DOCS
302-2
RFQ MAIN WEB PAGE
• RFQ CREATE
• RFQ QUOTE
• RFQ BROWSER
300
303
RFQ BROWSER
RFQ FIND
303-1
RFQ EDIT
303-2
RFQ VIEW
303-3
RFQ ACTIVITY
303-4
RFQ CLOSE
303-5

Fig. 10

RFQ Create

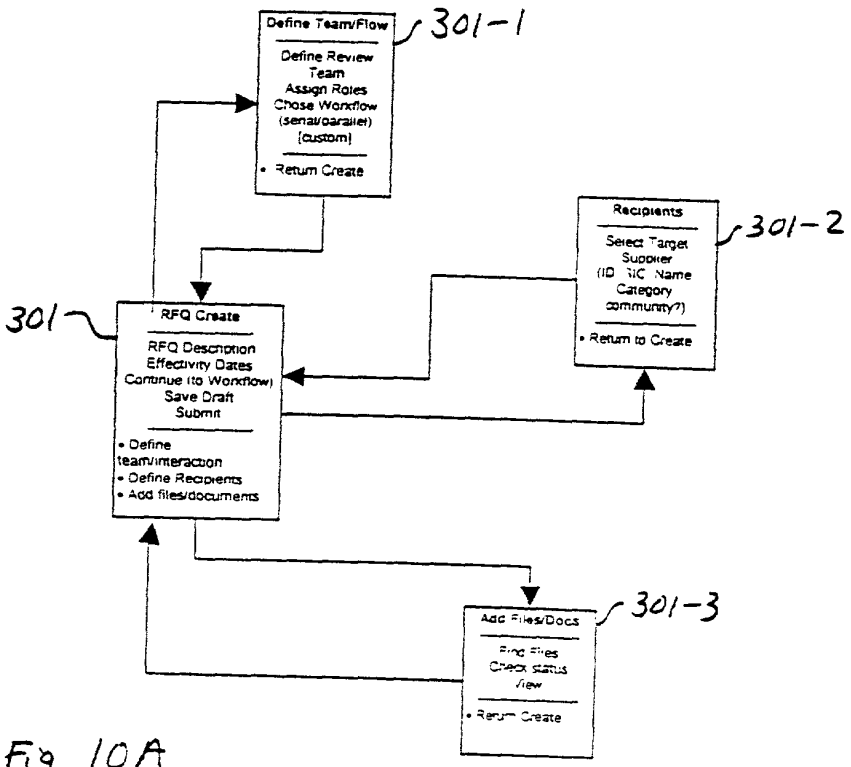


Fig 10A

RFQ Quote

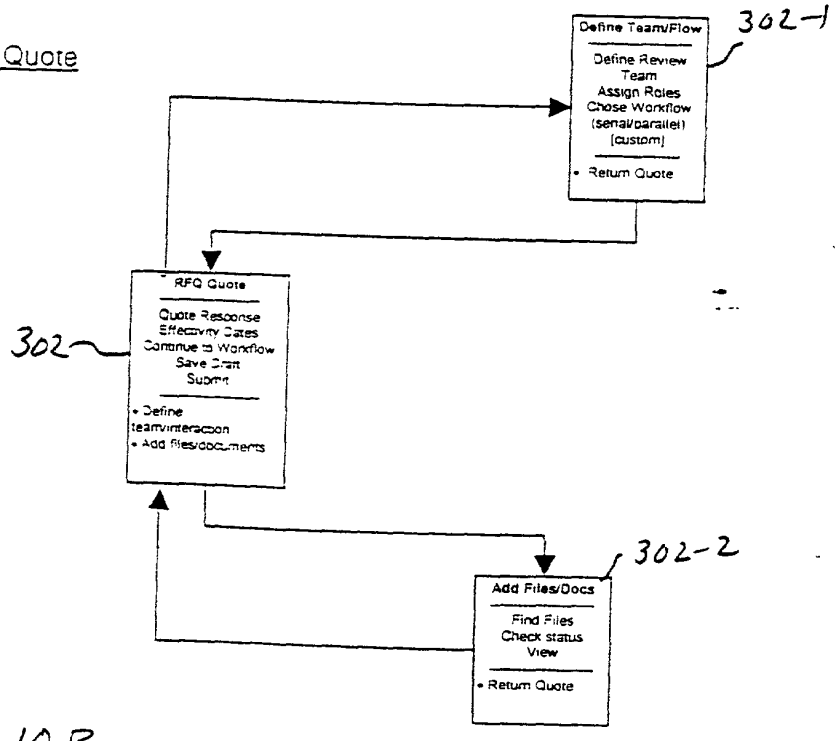


Fig 10B

RFQ Browser

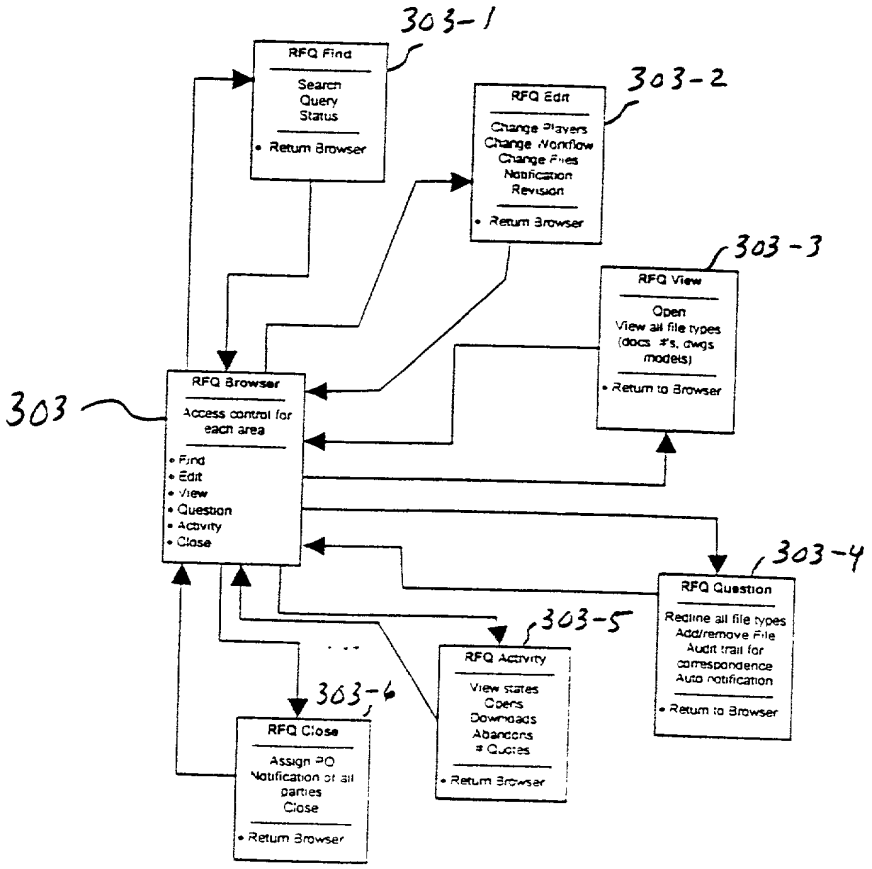


Fig 10C

RFQ Description: RFQ ID #: RFQ Originator:
RFQ Owner: RFQ Submitter: Key Players: Workflow:

Reviewer Team Information
Technical = Managerial =
Business =

Target Supplier(s):
Effectivity Dates:

Required Files:
Docs/Text
Numbers
3D
2D
Images

Help

Fig 11

Title: RFQ Find

Search for new RFQ business by:
- Sic Code
- Category
- Duns #

Search for Authored RFQ's:
- RFQ #
- Owner match:
- Date range:

View RFQ Description Overview

Fig 12A

Title: RFQ View

Select RFQ for opening
Open RFQ packet and inspect the contents

View Table of Contents
- Header Summary
- T&C's
- Documents

View Documents
- Word Documents
- Excel Spreadsheets
- Dwgs (Native drawing format of included models. PDF, DXF, DWG)
- Models (.ics, Pro/E, SDRC, Autodesk, SolidWorks)
- Product BOM

Fig 12B

Title: RFQ Question

Open RFQ packet set to respond

e-mail questions direct to RFQ owner. Use automatic addressing of response

Redline Documents
- Word Documents
- Excel Spreadsheets
- Drawings (refer to viewing section for list)
- Models (refer to viewing section for list)
- Product BOM

Fig 12C

Title: RFQ Activity Viewer

Stats per RFQ submitted

Number of hits based on time interval
Number of responses per RFQ

List of all Suppliers who have looked at the packet. How many downloads, number of respondents. This should include all supplier information allowing follow-on contact to be initiated by the client.

RFQ Removal capability

Fig 12D